From: "Card, Joan" </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE;GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9B904FC95A6348BA81F8DE23B1B2360D-CARD,JOAN>

To: Tyler
Patti;McGrath
Shaun;Cantor
Howard;

CC: Varcoe
Betsy;

Date: 1/21/2014 5:39:54 PM

Subject: RE: FY14 RARE Funding Recommendations

Hi all. I will be unable to participate in this meeting. I am totally on board with the recommendations. Thanks for the excellent effort and great result, Patti!

Joan

From: Tyler, Patti
Sent: Tuesday, January 21, 2014 3:00 PM
To: McGrath, Shaun; Cantor, Howard
Cc: Card, Joan; Varcoe, Betsy
Subject: FY14 RARE Funding Recommendations

Good Afternoon Shaun and Howard,

Please find the attached paper that provides the information and rationale for the FY14 RARE funding recommendations. The second attachment includes the five project proposals that were submitted.

Region 8 received the following five project proposals:

1. *Understanding Emissions from Control-Related Equipment used in Oil and Gas Production Operations to Support EPA's Air Quality Modeling of Ozone Non-attainment Areas* ($100K)

2. *Mercury Cycling, Biomagnification, and Risk Across Western North America: A Landscape Scale Synthesis to Link Long-Term Datasets* ($67K)

3. *Predicting Potential Downgradient Groundwater Quality Changes from In-Situ Recovery of Uranium at the Dewey-Burdock Site Using Core Data and*

Reactive Transport Modeling ($199K)

4. *Method to Determine Maximum Post-Restoration Contaminant Concentrations in ISR Wellfields to Prevent Breach of UIC Aquifer Exemption Boundary and Protect Downgradient USDWs at the Dewey-Burdock Site using Core Data and Reactive Transport Modeling* ($199K)

5. *Cost Effective Methodologies for Deploying Renewable Energy Systems (Solar) on Landfills and other Waste Repositories* ($141K)

Based on scientific and strategic numeric rankings (Attachment 1) and comments from the FY14 RARE Review Panel (6 members from across EPR, MO, OPRA and TMS), ORD's laboratory managers, ORD's National Program Directors, Region 8's highest programmatic priorities and concurrence from Region 8's Deputy Assistant Regional Administratrators, the proposed recommendation is to fund the following two FY14 research projects:

Understanding Emissions from Control-Related Equipment used in Oil and Gas Production Operations to Support EPA's Air Quality Modeling of Ozone Non-attainment ($75K in FY14 and $25K in FY15)

Method to Determine Maximum Post-Restoration Contaminant Concentrations in ISR Wellfields to Prevent Breach of UIC Aquifer Exemption Boundary and Protect Downgradient USDWs at the Dewey-Burdock Site using Core Data and Reactive Transport Modeling ($125K in FY14 and 75K in FY15)

Both projects address R8's highest programmatic priorities and their research outcomes are well aligned to significantly impact a significant programmatic decision over the next two years.

Improving EPA's knowledge of the control efficiency and speciation of VOC emissions from control-related devices used in oil and gas operations will provide quantifiable benefits of improved control devices and potential improved control efficiency for attainment of the ozone NAAQS. This study is of particular interest due to ozone non-attainment/unclassifiable areas adjacent to energy production activities in CO, WY and UT. The study results will be widely applicable to state/tribal agencies and EPA regions with oil and gas production activities (EPA Regions 3, 4, 6, 8, 9, and 10). The proposal aligns well with the strategic direction of EPA's Air, Climate, and Energy (ACE) Research Program, specifically from the perspective of understanding emissions from oil and gas operations, which is a 2014 ACE initiative. The assessment of the control and effectiveness of enclosed combustors is a topic of emerging importance for both ozone impact modeling and for input to support the development of New Source Performance Standards regulations for this sector. This work will be of immediate benefit to multiple parts of the Office of Air and Radiation.

The method to determine post-restoration contaminant concentrations in ISR wellfields at the Dewey-Burdock site continues to support R8's UIC Program with drafting the first uranium ISR Class III injection well permit to be issued directly by EPA. This method development involves examining the aquifer geochemistry in, and downgradient from, the ISR wellfield to evaluate the impact of post-ISR aquifer geochemistry on constituent concentrations in groundwater and to determine the maximum limits for contaminants that can be mitigated by the aquifer geochemistry to prevent a breach of the aquifer exemption boundary. In addition, this method would assist us in addressing groundwater concerns of several tribes across Region 5, 6, 7, and 8, and aligns

well with EPA's Safe and Sustainable Water Resources Program and a priority concern for the Office of Water/ Office of Ground Water and Drinking Water.

In order to support both of these projects, each project would be partially funded in FY14 and then based on successful project outcomes and revised budget estimates, each project would be funded to completion.

The authors of the mercury cycling project should be encouraged to resubmit their project proposal for FY15 funding consideration. This project could provide Region 8 an opportunity to focus efforts on a better understanding of the distribution or mercury and its fate within the Great Salt Lake and a greater ability to evaluate the risk posed by the Great Salt Lake in comparison to other waterbodies in the flyway for our water quality efforts to be meaningful protection to the migratory waterfowl.

I look forward to our discussion this Thursday.

Respectfully,

Patti

Patti Lynne Tyler
Science Advisor
U.S. EPA Region 8
303.312.6081